Closed Circuit Television Cameras

Description

CCTV Cameras are video cameras located along the freeway corridors that send video images to the traffic management center where there are monitors and operators, who view them. The traffic images can be used to verify traffic accidents or congestion and can sometimes even assist in determining appropriate resources for incident clearance (i.e., fire trucks, ambulance, tow trucks, etc.).

CCTV cameras are affordable, effective, and are proven to provide valuable information that can save time. The preferable style includes pan, tilt zoom (PTZ) features so that the operator can zoom in on a specific incident or, pan out for a view of the traffic queue. TMC operators can make a visual check of field conditions at a reported site. The operator can move the nearest camera to focus on the area of interest to verify the incident then check the nature of the incident and severity, make recommendations and finally, observe the progress of incident response and clearance. Cameras are often used to check the message displayed on changeable message signs.

CCTV cameras are most effective for use in traffic incident management if they are deployed along corridors or at intersections where there are high volumes of traffic or frequent incidents.

PROS	CONS
• **Relatively inexpensive way to verify and monitor traffic congestion.** • **Assists in traffic incident management by giving the operator visual of an accident. This allows the operator to make decisions regarding deployment of resources (maintenance vehicles, fire, etc.) before valuable resources are dispatched.** • **PTZ feature allows the operators to zoom in and see detail of incidents or pan out and have an overview of the traffic queue.**	• **Public opponents of CCTV point out the loss of privacy when CCTV cameras are deployed along corridors that are adjacent to housing, apartments and businesses located nearby.** • **Fiber communications lines are limited in the area but other forms of communication are used.**

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FREQUENTLY ASKED QUESTIONS ABOUT CLOSED CIRCUIT TELEVISIONS CAMERAS (CCTV)

Specific Locations and Conditions

Although there are currently over 500 CCTV cameras installed on the Bay Area freeway system I-680 is the only freeway segment that has a substantial CCTV coverage in Solano County. I-80 has CCTV coverage from the Carquinez Bridge to SR 37.

Cost

CCTV cameras are cost effective ranging from $5,000 - $15,000 each. The cost for purchase of the camera does not include the mounting of the device (i.e., concrete poles, light poles, etc...) or the communications. Mounting costs are based on whether the mounting option exists at the scene or if it has to be built. Communications costs depend on options available (i.e., microwave, hardwire, etc.).

Are the CCTV cameras monitored 24/7?

Video images from the CCTV cameras are sent to the Oakland TMC where TMC operators and the California Highway Patrol have access to them 24 hours a day.

Do the CCTV cameras record accidents and if so, how is the video used by Traffic Management Centers (TMC's)?

Caltrans does not record or archive video images.

Can CCTV cameras be used for "spying" on public homes or, for recording vehicle speeds with license plates to issue citations to the public for speeding?

CCTV cameras are pointed away from private residences. Speeds cannot be legally documented using CCTV cameras for enforcement purposes unless there are posted signs advising the public that the signal is posted as an "enforcement signal".

What are the challenges in successfully implementing appropriate use of CCTV Cameras in the region?

The use of fiber is the preferred communications medium along freeway segments primarily for the transport of video images from CCTV cameras to the TMC in Oakland because it has the greatest data carrying capacity and longest transmission distance. Communications are a challenge because there is sparse coverage of the freeways in the County with fiber; most of the CCTV cameras are communicated with using either a leased ISDN or ADN line. ●

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